

Abstract Submitted
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Track **Find-**
ing and Reconstruction for the OLYMPUS Experiment¹ LAUREN ICE,
Arizona State University, OLYMPUS COLLABORATION — The OLYMPUS ex-
periment aims at measuring the positron-proton to electron-proton elastic scattering
cross section ratio as evidence of a multiple photon exchange contribution to elastic
electron-proton scattering. The experiment took place during 2012 using 2.01 GeV
electron and positron beams incident on a hydrogen gas target. The cross section
ratio is measured with the OLYMPUS spectrometer, comprising six wire chambers
arranged in two sectors, surrounded by a time of flight scintillator array. Track
finding and reconstruction is based on matching patterns derived from a Monte
Carlo simulation followed by an implementation of the elastic arms algorithm. The
employed algorithms will be discussed in detail in this talk.

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